DPS FRAMEWORK SCHEDULE 4: LETTER OF APPOINTMENT AND CONTRACT TERMS

Part 1: Letter of Appointment

PA Consulting Services Limited

[redacted]

Dear [redacted]

Letter of Appointment

This letter of Appointment dated 07th February 2022, is issued in accordance with the provisions of the DPS Agreement (RM6018) between CCS and the Supplier.

Capitalised terms and expressions used in this letter have the same meanings as in the Contract Terms unless the context otherwise requires.

Order Number:	PS21272
From:	**Department of Business Energy and Industrial Strategy**, 1 Victoria St, Westminster, London, SW1H 0ET **("Customer")**
To:	PA Consulting Services Limited, [redacted]

Effective Date:	Monday, 07th February 2022
Expiry Date:	Wednesday, 30th March 2022

Services required:	Set out in Section 2, Part B (Specification) of the DPS Agreement and refined by: The Customer's Project Specification attached at Appendix A and the Supplier's Proposal attached at Appendix B.

Key Individuals:	[redacted]

Contract Charges (including any applicable discount(s), but excluding VAT):	As per AW5.2 Price Schedule response highlighted within the RM6018 Contract Terms, section; Annex 1 – Contract Charges. The total value of this contract shall not exceed £94,355.00 excluding VAT. **Payment schedule** [redacted]
Insurance Requirements	performance of the Contract, with a minimum limit of £5 million for each individual claim. Additional employers' liability insurance with a minimum limit of £5 million indemnity. Additional professional indemnity insurance adequate to cover all risks in the performance of the Contract with a minimum limit of indemnity of £2 million for each individual claim. Product liability insurance cover all risks in the provision of Deliverables under the Contract, with a minimum limit of £5 million for each individual claim.
Liability Requirements	**Suppliers limitation of Liability** (Clause 18.2 of the Contract Terms);
Customer billing address for invoicing:	All invoices should be sent to should be sent [redacted]

FORMATION OF CONTRACT

BY SIGNING AND RETURNING THIS LETTER OF APPOINTMENT (which may be done by electronic means) the Supplier agrees to enter a Contract with the Customer to provide the Services in accordance with the terms of this letter and the Contract Terms.

The Parties hereby acknowledge and agree that they have read this letter and the Contract Terms.

The Parties hereby acknowledge and agree that this Contract shall be formed when the Customer acknowledges (which may be done by electronic means) the receipt of the signed copy of this letter from the Supplier within two (2) Working Days from such receipt

For and on behalf of the Supplier:

Name and Title: [redacted]

Signature: [redacted]

Date: [redacted]

For and on behalf of the Customer:

Name and Title: [redacted]

Signature: [redacted]

Date: [redacted]

ANNEX A

Customer Project Specification

1. Background

Boosting innovation is one of the Government's priorities and forms one of the pillars for Build Back Better: Plan for Growth. The Innovation Strategy sets out the government's vision to make the UK a global hub for innovation by 2035. Central to this is ensuring our research, development and innovation institutions serve the needs of businesses and places across the UK. Innovation is a key driver of economic growth and improvements to living standards, but adoption and diffusion determine how large this driver is.

There are significant gains at firm and national level from adopting existing innovations. Research suggests that 55% of future labour productivity will come from adopting best practice technologies, and that the UK economy could gain £100 billion by adopting tried and tested technologies and closing the productivity gap between the most and least productive UK firms. Innovation adoption and productivity have a positive and significant relationship which has been empirically proven.

We know innovation adoption and diffusion is important, but we do not know why it has slowed down in recent years, or why the UK performs so poorly on innovation diffusion, despite our otherwise impressive performance on innovation metrics. We also know relatively little about within-country adoption, and how innovation cascades from the global frontier to other firms. This project will fill this important evidence gap, enabling more people and firms to benefit from innovations produced in the UK and abroad. Innovation diffusion is crucial to the levelling up agenda, boosting productivity in less productive regions.

2. Aims and Objectives of the Project

This project will provide the first detailed look at adoption and diffusion in the UK economy. There is a lot we do not know about adoption and diffusion in the UK. What we know is that diffusion has slowed, with the gap between those companies operating at the technological frontier and those operating inside this frontier having widened. To fix the UK diffusion engine, we must first understand it.

This project is split into two sections. We expect all bidders to explain how they would answer the questions and sub-questions listed in section one. For section two, bidders should focus on where they can add most value. A bid that comprehensively addresses some sub-question from section two is preferred to a bid that poorly addresses all the sub-questions in section two.

Section 1 – Understanding innovation adoption and diffusion in the UK

The UK innovation adoption and diffusion ecosystem

We want to understand the innovation adoption and diffusion ecosystem that operates in the UK, including the main actors, their different roles, and where they add value in the adoption and diffusion process. In so doing, we also want to know how the UK compares to other countries, and how we could do better by imitating and adapting what works in other contexts. We have heard from experts that some countries have strong institutions that facilitate innovation adoption and diffusion, but there are few comprehensive studies on these institutions.

1. What does the innovation adoption and diffusion ecosystem look like in the UK?
    a. Who are the main actors involved?

b. What are the strengths and weaknesses of the UK innovation adoption and diffusion ecosystem?
c. How do we compare to countries on the adoption and diffusion frontier?
d. What institutions is the UK lacking that other countries have?
e. How does market competition affect the incentive or ability to adopt innovation?
f. What policy instruments and institutions exist and are most effective for stimulating adoption and diffusion?
g. What market incentives exist are most effective for stimulating adoption and diffusion?

Models of innovation adoption and diffusion

By understanding how adoption and diffusion differs across types of innovation, sectors and regions, we can understand where the largest productivity gaps are, and where extra support may be needed.

2. What do the models of innovation adoption and diffusion look like in the UK?
    a. What are the main models by type of innovation?
        i. What are their relative strengths and weaknesses?
        ii. What are the capability, opportunity and motivation barriers? Do certain innovation types display more of these than others?
        iii. How has Covid affected this?
    b. What are the main models at the regional level?
        i. What are their relative strengths and weaknesses?
        ii. What are the capability, opportunity and motivation barriers? Do certain regions display more of these than others?
        iii. How has Covid affected this?
    c. What are the main models at the sector level?
        i. What are their relative strengths and weaknesses?
        ii. What are the capability, opportunity and motivation barriers? Do certain sectors display more of these than others?
        iii. How has Covid affected this?

How to measure innovation adoption and diffusion

There is no standard methodology for measuring adoption and diffusion, meaning several different methodologies exist in the literature. We are interested in understanding exactly what different methodologies exist, how they compare, any trade-offs in their use, and which methodologies we should be using going forward.

3. What is the best methodology for measuring innovation adoption and diffusion?
    a. What different methodologies are used to measure innovation adoption and diffusion?
    b. What are the relative strengths and weaknesses of these different methodologies?
    c. What trade-offs are involved when choosing between different methodologies?

Section 2 – Quantitative analysis of innovation adoption and diffusion

Innovation adoption and diffusion by type of innovation, sector and region

This section will build on insights from section one. Understanding how innovation adoption and diffusion differ by innovation type, sector and region is important for closing productivity gaps. To prioritise action, we need to understand where the largest productivity gaps are. **Please explain what data you anticipate using to answer some or all of the sub-questions listed below.**

4. How do different innovation types, sectors and regions in the UK perform in terms of innovation adoption and diffusion?
    a. Which types of innovation, regions and sectors have the longest tail of laggards in adoption and diffusion? Why?
    b. Are firms mainly adopting innovations from the UK or from abroad? How does this vary by types of innovation, region and sector?
    c. Which firms adopt more cutting-edge innovations? Are they larger firms, younger firms, globally competitive firms?
    d. Do sectors with higher levels of competition see more or less innovation adoption? Does this vary with the type of competition (i.e. price vs non-price competition)?

3. **Suggested Methodology**

If applicable:	**Insert numbers:**
Total number of Case Studies	**5**

The methods of research are an extensive literature review and quantitative analysis.

On question 1, the bidder will map the adoption and diffusion ecosystem in the UK. In doing so, they will consider the full range of public, private, and quasi-public actors and institutions that play a role, including their complementarities. They will compare the UK with other countries. Based on the evidence, we suggest Ireland, Israel, Finland, Japan, and Korea, but we welcome alternative suggestions based on sound logic and the bidder's exposure to different countries' national innovation systems. On market competition, we are interested in the empirical link with innovation adoption and diffusion, and how this varies by sector and innovation.

On question 2, the bidder will review the literature to identify a number of models, which they will then map to different innovations, sectors and regions. They will consider a range of innovations, such as technology, business models, standards, supply chain management, and people management. Here, we expect they will apply the COM-B framework (capability, opportunity, motivation, and behaviour) to understand what barriers are inhibiting adoption and diffusion by innovation, sector, and region. The level of analysis should be sufficiently granular to provide useful insight.

On question 3, the bidder will examine empirical studies on innovation adoption and diffusion, looking at the techniques used in different studies. They will examine the techniques and context, to determine which methodologies are most appropriate in different contexts.

On question 4, the bidder will undertake quantitative analysis. This will be informed by the review of methodologies in question 3, in consultation with BEIS. The bidder is welcome to propose original and novel quantitative analysis to answer the research questions.

In the above, we are looking for research that provides new insights. The bid that adds the most value with be of the most interest.

4. Deliverables

Interim findings covering questions 1-3 will be shared with BEIS. The bidder and BEIS will then work together to decide on an appropriate methodology for question 4.

The final product will be a report which contains the analysis answering the four key research questions. In addition to the analysis and summaries of findings for each question, the final report will include the following tables and case studies in response to each research question:

Question 1:

1. In addition to narative, three tables / figures (one for public, private, and quasi-public institutions) showing the main actors and their roles in the UK
2. Five case studies on other countries' adoption and diffusion ecosystems with lessons for the UK.
3. Table listing the policy instruments used / available to the UK
4. Table listing the market incentives available in the UK

Question 2:

5. In addition to narrative, three tables for the different models of innovation adoption and diffusion by type of innovation, sector and region.

Question 3:

6. Table of the different methodologies used to measure innovation adoption and diffusion. This table will provide explicit recommendations for which methodologies to use based on quality of the proxy and appropriateness in different scenarios, i.e. for particularly sectors.

Question 4:

7. Table of the empirical results with appropriate discussion of results, methodology and conclusions, separated by type of innovation, region, or sector, as appropriate.

All the data gathered, analysis undertaken, and code written for the analysis will be transferred to BEIS upon completion of the project.

We intend for the final report to be published, and are interested in exploring potential for this to be hosted on the contractor's website. Contractors will be responsible for ensuring the report clearly communicates the analysis to technical and non-technical audience through good use of data visualisations, tables, graphs and clear and concise narrative.

ANNEX B

Supplier Proposal

[Redacted]

Part 2: Contract Terms

Contract Terms v6.0